9070

Examination – Mid-semester
Electronics

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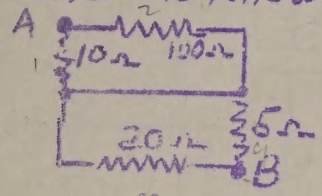
Date NOV-7-56

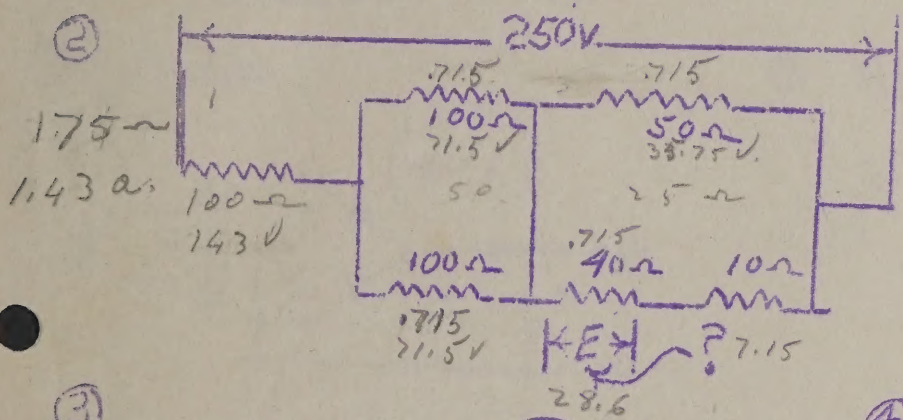
Solve the following circuits:

(1)



R from A to B = 13.1Ω (+10)

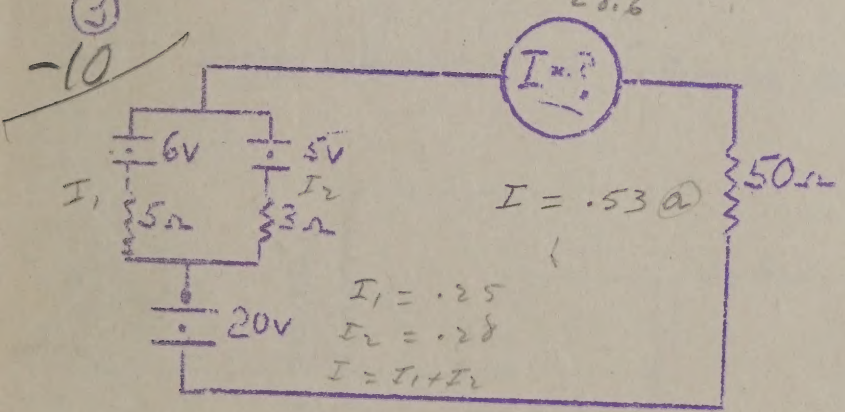
(2)



E = 28.6 V.

(3)

-10



(4) +10

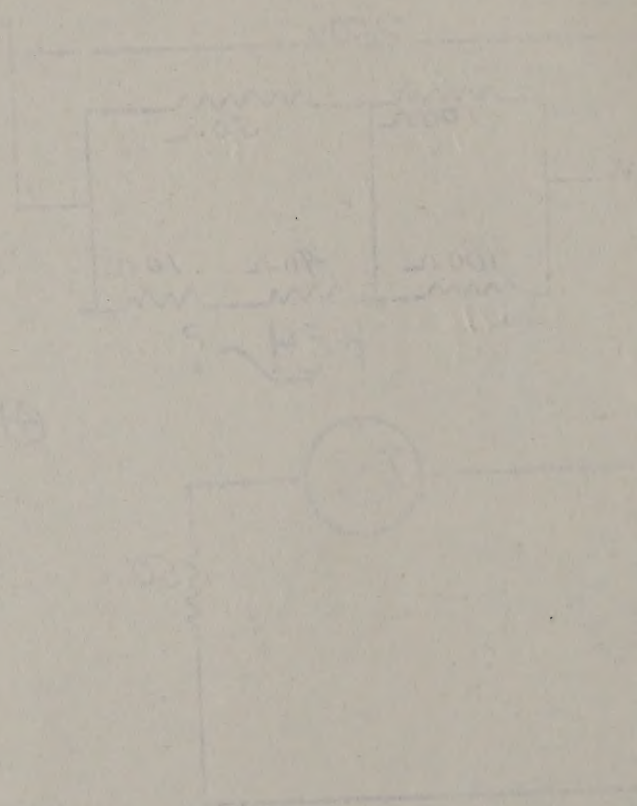
Give the equations for the following:

a. $R = \frac{E}{I}$ ohms
b. $E = IR$ volts
c. $I = \frac{E}{R}$ amperes
d. Power = EI watts
e. Three unlike resistors in parallel $\frac{1}{\frac{1}{R_1}+\frac{1}{R_2}+\frac{1}{R_3}}$
f. $G = \frac{1}{R}$ mhos
g. Three unlike capacitors in series $\frac{1}{\frac{1}{C_1}+\frac{1}{C_2}+\frac{1}{C_3}}$
h. $TC = RC$ seconds

(5) What % of charge will remain on a capacitor in a circuit which is discharged after 2 time constants?

14%

+10

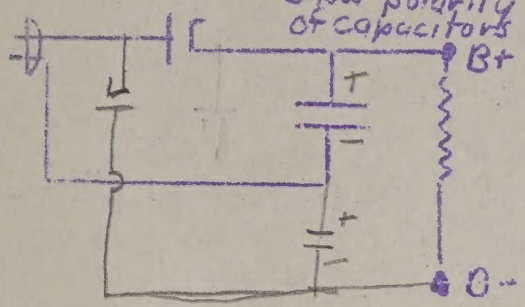


Exam. - Mid-Semester (cont.)

Complete the following schematics

⑥ Voltage Doubler - Full-wave

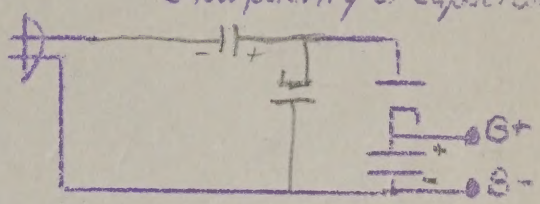
Show polarity of capacitors



(+10)

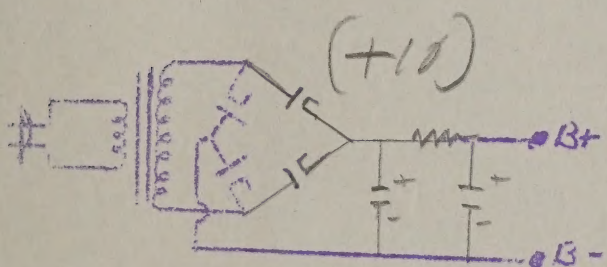
⑦ Voltage Doubler - Half-wave

Show polarity of capacitors



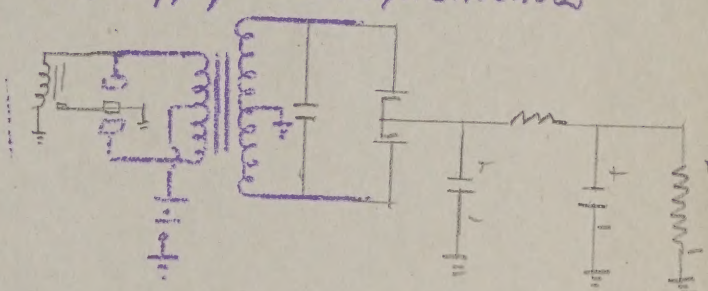
(+10)

⑧ Bridge



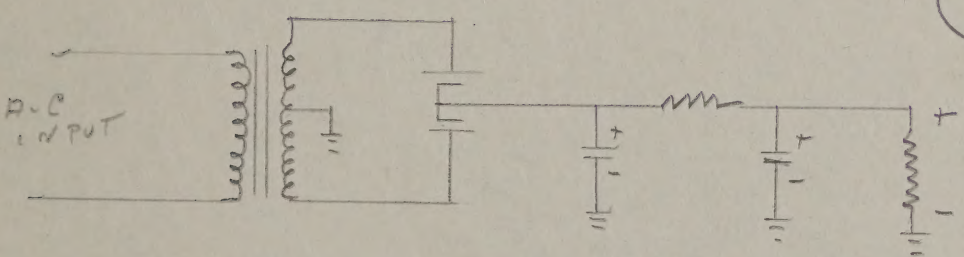
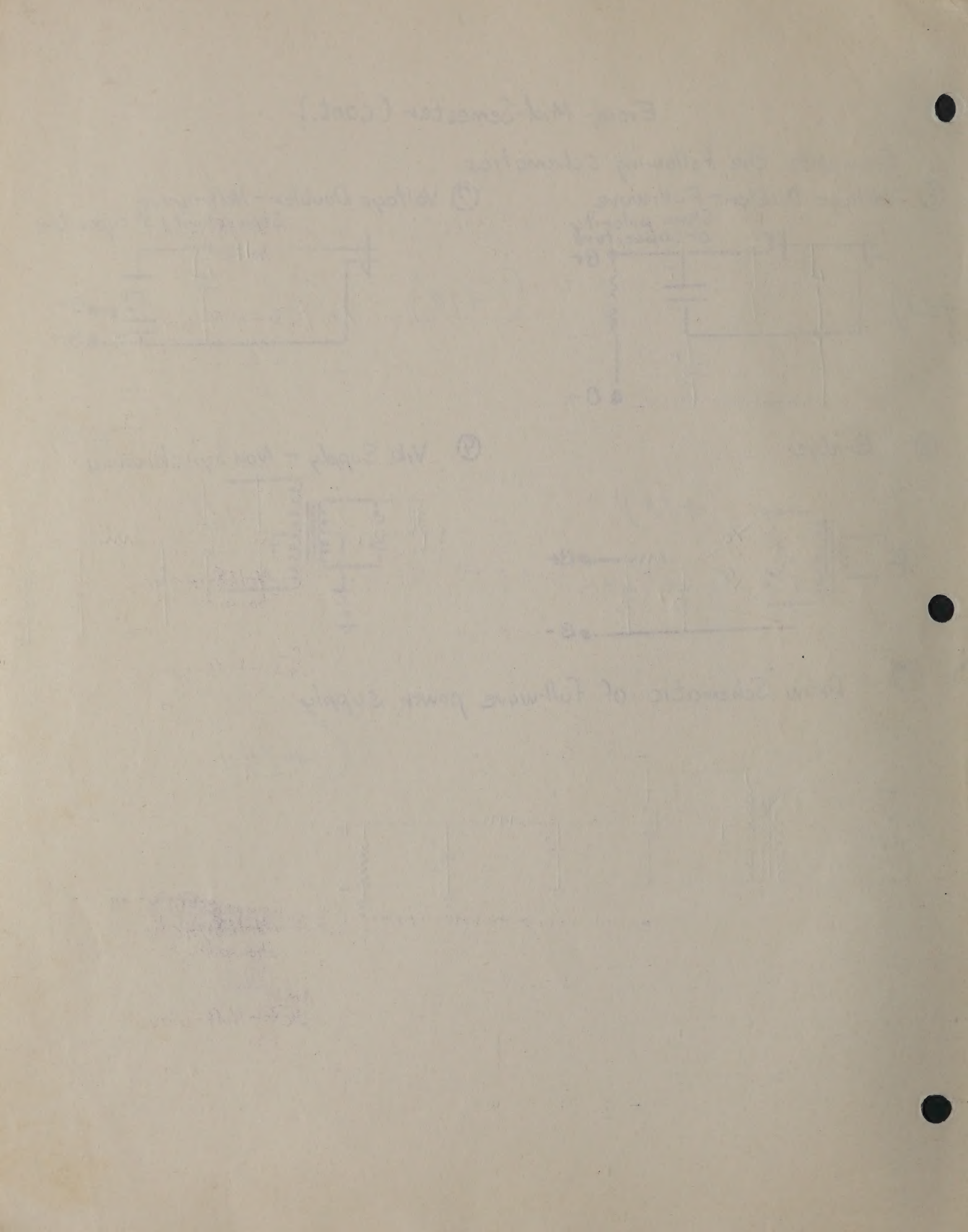
(+10)

⑨ Vib. Supply - Non Synchronous



(+10)

⑩ Draw Schematic of full-wave power supply



(+10)